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      1. A distributed printing control apparatus connecting with a plurality of printers, said distributed printing control apparatus distributing

5   print data of interest, which is generated by an application program and is to be printed, into said plurality of printers, converting the distributed print data into output data suitable for each of said printers via a printer driver provided for said each printer, and transmitting the converted output data to said each printer, said distributed printing control apparatus comprising:

10   a virtual printer driver storage module that stores therein a virtual printer driver for specifying information on a virtual printer; and

      an intermediate print data generation module that executes the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program,

15   wherein the obtained intermediate print data is used as the print

data of interest.

2. A distributed printing control apparatus in accordance with claim 1, wherein the virtual printer driver specifies information with regard to a

20   highest-performance printer among all available printers as destinations of distribution.

3. A distributed printing control apparatus in accordance with claim 2, said distributed printing control apparatus further comprising:

25   a performance information collection module that collects information with regard to performances of all said available printers as the destinations

of distribution from printer drivers individually provided for said available printers; and

a highest performance selection module that selects a highest performance among the performances of all said available printers collected

5   by said performance information collection module.

4. (Amended) A distributed printing control apparatus in accordance with claim 1,

said distributed printing control apparatus further comprising: a virtual printer printing

information setting module that displays an input window on a display device and sets

various pieces of information required for printing with said virtual printer, based on input

data from an input device like a mouse and a keyboard.

15   5. A distributed printing control apparatus in accordance with claim 4,

said distributed printing control apparatus further comprising:

an information transmission module that causes at least part of the

various pieces of information set by said virtual printer printing information

setting module to undergo a series of processing carried out by each printer

20   driver.

6. (Amended) A distributed printing control apparatus in accordance with claim 4,

said distributed printing control apparatus further comprising: a real printer printing

information setting module that is individually provided for each of said plurality of printers

connected to said distributed printing control apparatus to set various pieces of information

required for printing with said each printer; and a display control module that displays a

display window on said display device, the display window including a plurality of icons for

individually activating said real printer printing information setting modules and an icon for

activating said virtual printer printing information setting module.

7. (Amended) A distributed printing control apparatus in accordance with claim 1, said distributed printing control apparatus further comprising: a distribution information setting module that displays an input window for distribution of the print data and sets various pieces of information required for distributing the print data into said plurality of printers, based on the input data from said input device; and a print data distribution module

8. A distributed printing control apparatus in accordance with claim 7, wherein one of the various pieces of information required for distributing the print data into said plurality of printers restricts a destination of distribution of the print data to a printer included in a specific group selected among said plurality of printers connected to said distributed printing control apparatus.

9. (Amended) A distributed printing control apparatus in accordance with claim 1, wherein the intermediate print data obtained by said intermediate print data generation module is temporarily registered as an intermediate print file in an external storage device.

10. (Amended) A distributed printing control apparatus in accordance with claim 1, wherein said plurality of printers are connected to said distributed printing control apparatus via a computer network.

11. A distributed printing control method that distributes print data of interest, which is generated by an application program and is to be printed, into a plurality of printers, converts the distributed print data into output data suitable for each of said printers via a printer driver provided for said each printer, and transmits the converted output data to said each printer, said distributed printing control method comprising the steps of:

(a) providing in advance a virtual printer driver for specifying information on a virtual printer in a storage device; and

(b) executing the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program,

wherein the obtained intermediate print data is used as the print data of interest.

12. A distributed printing control method that distributes print data of interest, which is generated by an application program and is to be printed, into a plurality of printers, converts the distributed print data into output data suitable for each of said printers via a printer driver provided for said each printer, and transmits the converted output data to said each printer,

said distributed printing control method comprising at least one step corresponding to the structure of a distributed printing control apparatus in accordance with any one of claims 2 to 10.

5   13. A computer readable recording medium in which a computer program used in a distributed printing control apparatus is recorded, said distributed printing control apparatus connecting with a plurality of computers, distributing print data of interest, which is generated by an application program and is to be printed, into a plurality of printers,

10   converting the distributed print data into output data suitable for each of said printers via a printer driver provided for said each printer, and transmitting the converted output data to said each printer, said computer program causing a computer to attain the functions of:

(a) providing in advance a virtual printer driver for specifying

15   information on a virtual printer in a storage device; and

(b) executing the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program and using the obtained intermediate print data as the print data of interest.

20   14. A computer readable recording medium in accordance with claim 13, wherein the virtual printer driver specifies information with regard to a highest-performance printer among all available printers as destinations of distribution.

25   15. A computer readable recording medium in accordance with claim 14, wherein said computer program further causes the computer to attain the

functions of:

(c) collecting information with regard to performances of all said available printers as the destinations of distribution from printer drivers individually provided for said available printers; and

5   (d) selecting a highest performance among the performances of all said available printers collected by said function (c).

16. (Amended) A computer readable recording medium in accordance with claim 13, wherein said computer program further causes the computer to attain the function of: (e) displaying an input window on a display device and setting various pieces of information required for printing with said virtual printer, based on input data from an input device like a mouse and a keyboard.

15   17. A computer readable recording medium in accordance with claim 16, wherein said computer program further causes the computer to attain the function of:

causing at least part of the various pieces of information set by said function (e) to undergo a series of processing carried out by each printer

20   driver.

18. (Amended) A computer readable recording medium in accordance with claim 16, wherein said computer program further causes the computer to attain the functions of: (f)

setting various pieces of information required for printing with each of said plurality of

printers connected to said distributed printing control apparatus, said function (f) being

individually set for said each printer; and (g) displaying a display window on said display

device, the display window including a plurality of icons for individually activating said

functions (f) and an icon for activating said function (e).

19. (Amended) A computer readable recording medium in which a computer program

used in a distributed printing control apparatus is recorded, said distributed printing control

apparatus connecting with a plurality of computers, distributing print data of interest, which

is generated by an application program and is to be printed, into a plurality of printers,

converting the distributed print data into output data suitable for each of said printers via a

printer driver provided for said each printer, and transmitting the converted output data to

said each printer, said computer program causing a computer to attain at least one function

corresponding to the structure of a distributed printing control apparatus in accordance with

claim 7.

20. A computer program that is used in a distributed printing control

20   apparatus, said distributed printing control apparatus connecting with a

plurality of computers, distributing print data of interest, which is generated

by an application program and is to be printed, into a plurality of printers,

converting the distributed print data into output data suitable for each of

said printers via a printer driver provided for said each printer, and

25   transmitting the converted output data to said each printer, said computer

program causing a computer to attain the functions of:

21. A distributed printing control apparatus that distributes print data of interest, which is generated by an application program and is to be printed, into a plurality of printers and outputs the distributed print data to

10   each of said plurality of printers via a printer driver corresponding to a type of said each printer, said distributed printing control apparatus comprising:

a virtual printer driver storage module that, when said plurality of printers are of an identical type, stores therein a virtual printer driver for specifying information on the identical type of said printers as information

15   with regard to a virtual printer;

an intermediate print data generation module that executes the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program;

a print data allocation module that allocates the intermediate print

20   data to said plurality of printers; and

an output data control module that transmits the intermediate print data respectively to said plurality of printers according to the allocation by said print data allocation module without any data conversion by the

corresponding printer driver.

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22. A distributed printing control apparatus in accordance with claim

21, wherein a predetermined unit of the allocation of the intermediate print data by said print data allocation module is each page of a document expressed by print data.

23. (Amended) A distributed printing control apparatus in accordance with claim 21,

wherein the intermediate print data obtained by said intermediate print data generation

module is temporarily registered as an intermediate print file in an external storage device.

10   24. A distributed printing control apparatus in accordance with claim

23, said distributed printing control apparatus reading the intermediate print

file registered in said external storage device in response to an external

command and re-executing distributed printing of the intermediate print

data in the intermediate print file with said plurality of printers.

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25. A distributed printing control apparatus in accordance with claim

24, wherein said print data allocation module and said output data control

module are activated again to attain the re-execution of the distributed

printing.

26. (Amended) A distributed printing control apparatus in accordance with claim 21,

said distributed printing control apparatus further comprising: a performance information

collecting module that collects information regarding performances of each of said plurality

of printers from a printer driver provided for said each printer; and an identity decision

module that determines that said plurality of printers are of the identical type, based on the

performances of said plurality of printers collected by said performance information

collecting module.

27. (Amended) A distributed printing control apparatus in accordance with claim 21,

said distributed printing control apparatus further comprising: a distribution information

setting module that displays an input window for distribution of the print data and sets

various pieces of information required for distributing the print data into said plurality of

printers, based on input data from an input device, wherein said print data allocation module

allocates the intermediate print data, based on the various pieces of information set by said

distribution information setting module.

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28. A distributed printing control apparatus in accordance with claim

27, wherein one of the various pieces of information required for distributing

the print data into said plurality of printers restricts a destination of

distribution of the print data to a printer included in a specific group selected

20   among said plurality of printers connected to said distributed printing control

apparatus.

29. (Amended) A distributed printing control apparatus in accordance with claim 27,

wherein the intermediate print data obtained by said intermediate print data generation

module is specified as an intermediate print file and is temporarily registered, together with

the various pieces of information set by said distribution information setting module, in an

external storage device.

30. (Amended) A distributed printing control apparatus in accordance with claim 21,

wherein at least one of said plurality of printers is connected to said distributed printing

control apparatus via a computer network.

31. A distributed printing control apparatus that distributes print

10   data of interest, which is generated by an application program and is to be

printed, into a plurality of printers and outputs the distributed print data to

each of said plurality of printers via a printer driver corresponding to a type

of said each printer, said distributed printing control apparatus comprising:

a virtual printer driver storage module that specifies information on a

15   virtual printer, and when said plurality of printers are of an identical type,

stores therein a virtual printer driver for specifying information on the

identical type of said printers;

an intermediate print data generation module that executes the

virtual printer driver to obtain intermediate print data adequate for said

20   virtual printer from said application program;

a print data allocation module that allocates the intermediate print

data to said plurality of printers;

an identity decision module that determines whether or not said

plurality of printers are of the identical type; and

25   an output data control module that, when it is determined that said

plurality of printers are of the identical type, transmits the intermediate

print data respectively to said plurality of printers according to the allocation

by said print data allocation module without any data conversion by the

corresponding printer driver, and when it is determined that said plurality of

printers are not of the identical type, transmits the intermediate print data

5   respectively to said plurality of printers according to the allocation by said

print data allocation module with data conversion by the corresponding

printer driver.

32. A distributed printing control method that distributes print data of interest, which is generated by an application program and is to be printed, into a plurality of printers and outputs the distributed print data to each of said plurality of printers via a printer driver corresponding to a type of said each printer, said distributed printing control method comprising the steps of:

(a) when said plurality of printers are of an identical type, providing in advance a virtual printer driver for specifying information on the identical type of said printers as information with regard to a virtual printer in a storage device;

(b) executing the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program;

(c) allocating the intermediate print data to said plurality of printers; and

(d) transmitting the intermediate print data respectively to said plurality of printers according to the allocation in said step (c) without any data conversion by the corresponding printer driver.

33. (Amended) A distributed printing control method that distributes print data of interest, which is generated by an application program and is to be printed, into a plurality of printers and outputs the distributed print data to each of said plurality of printers via a printer driver corresponding to a type of said each printer, said distributed printing control method comprising at least one step corresponding to the structure of a distributed printing control apparatus in accordance with claim 22.

34. A distributed printing control method that distributes print data of interest, which is generated by an application program and is to be printed, into a plurality of printers and outputs the distributed print data to each of said plurality of printers via a printer driver corresponding to a type of said each printer, said distributed printing control method comprising the steps of:

(a) specifying information on a virtual printer, and when said plurality of printers are of an identical type, providing in advance a virtual printer driver for specifying information on the identical type of said printers in a storage device;

(b) executing the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program;

(c) allocating the intermediate print data to said plurality of printers;

(d) determining whether or not said plurality of printers are of the identical type; and

(e) when it is determined that said plurality of printers are of the identical type, transmitting the intermediate print data respectively to said plurality of printers according to the allocation in said step (c) without any data conversion by the corresponding printer driver, and when it is

determined that said plurality of printers are not of the identical type, transmitting the intermediate print data respectively to said plurality of printers according to the allocation in said step (c) with data conversion by the corresponding printer driver.

35. A computer readable recording medium in which a computer program used in a distributed printing control apparatus is recorded, said distributed printing control apparatus distributing print data of interest, which is generated by an application program and is to be printed, into a

10   plurality of printers of an identical type and outputting the distributed print data to each of said plurality of printers via a printer driver provided for said each printer, said computer program causing a computer to attain the functions of:

(a) when said plurality of printers are of the identical type, providing

15   in advance a virtual printer driver for specifying information on the identical type of said printers as information with regard to a virtual printer in a storage device;

(b) executing the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program;

20   (c) allocating the intermediate print data to said plurality of printers; and

and

(d) transmitting the intermediate print data respectively to said plurality of printers according to the allocation by said function (c) without any data conversion by the corresponding printer driver.

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36. A computer readable recording medium in accordance with claim

35, wherein a predetermined unit of the allocation of the intermediate print data by said function (c) is each page of a document expressed by print data.

37. (Amended) A computer readable recording medium in accordance with claim 35, wherein the intermediate print data obtained by said function (b) is temporarily registered as an intermediate print file in an external storage device.

38. A computer readable recording medium in accordance with claim

10   37, wherein said computer program causes the computer to attain the function of:

reading the intermediate print file registered in said external storage device in response to an external command and re-executing distributed printing of the intermediate print data in the intermediate print file with

15   said plurality of printers.

39. (Amended) A computer readable recording medium in accordance with claim 35, wherein said computer program further causes the computer to attain the functions of: (e) displaying an input window for distribution of the print data and setting various pieces of information required for distributing the print data into said plurality of printers, based on input data from an input device, where said function (c) allocates the intermediate print data, based on the various pieces of information set in said step (e); and

(f) specifying the intermediate print data obtained by said function (b) as an intermediate print file and outputting the intermediate print file together with the various pieces of information set in said step (e) to an external storage device.

40. A computer readable recording medium in which a computer

5   program used in a distributed printing control apparatus is recorded, said

distributed printing control apparatus distributing print data of interest,

which is generated by an application program and is to be printed, into a

plurality of printers and outputting the distributed print data to each of said

plurality of printers via a printer driver provided for said each printer,

10   said computer program causing a computer to attain at least one

function corresponding to the structure of a distributed printing control

apparatus in accordance with any one of claims 25 to 28 and 30.

41. A computer readable recording medium in which a computer

15   program used in a distributed printing control apparatus is recorded, said

distributed printing control apparatus distributing print data of interest,

which is generated by an application program and is to be printed, into a

plurality of printers and outputting the distributed print data to each of said

plurality of printers via a printer driver corresponding to a type of said each

20   printer, said computer program causing a computer to attain the functions of:

(a) specifying information on a virtual printer, and when said

plurality of printers are of an identical type, providing in advance a virtual

printer driver for specifying information on the identical type of said printers

in a storage device;

25   (b) executing the virtual printer driver to obtain intermediate print

data adequate for said virtual printer from said application program;

(c) allocating the intermediate print data to said plurality of printers;

(d) determining whether or not said plurality of printers are of the identical type; and

(e) when it is determined that said plurality of printers are of the identical type, transmitting the intermediate print data respectively to said plurality of printers according to the allocation by said function (c) without any data conversion by the corresponding printer driver, and when it is determined that said plurality of printers are not of the identical type, transmitting the intermediate print data respectively to said plurality of printers according to the allocation by said function (c) with data conversion by the corresponding printer driver.

42. A computer program used in a distributed printing control apparatus, said distributed printing control apparatus distributing print data of interest, which is generated by an application program and is to be printed, into a plurality of printers of an identical type and outputting the distributed print data to each of said plurality of printers via a printer driver provided for said each printer, said computer program causing a computer to attain the functions of:

(a) when said plurality of printers are of the identical type, providing in advance a virtual printer driver for specifying information on the identical type of said printers as information with regard to a virtual printer in a storage device;

(b) executing the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program;

(c) allocating the intermediate print data to said plurality of printers;

and

(d) transmitting the intermediate print data respectively to said plurality of printers according to the allocation by said function (c) without any data conversion by the corresponding printer driver.

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43. A computer program used in a distributed printing control apparatus, said distributed printing control apparatus distributing print data of interest, which is generated by an application program and is to be printed, into a plurality of printers and outputting the distributed print data to each

10   of said plurality of printers via a printer driver corresponding to a type of said each printer, said computer program causing a computer to attain the functions of:

(a) specifying information on a virtual printer, and when said plurality of printers are of an identical type, providing in advance a virtual

15   printer driver for specifying information on the identical type of said printers in a storage device;

(b) executing the virtual printer driver to obtain intermediate print data adequate for said virtual printer from said application program;

(c) allocating the intermediate print data to said plurality of printers;

20   (d) determining whether or not said plurality of printers are of the identical type; and

(e) when it is determined that said plurality of printers are of the identical type, transmitting the intermediate print data respectively to said plurality of printers according to the allocation by said function (c) without

25   any data conversion by the corresponding printer driver, and when it is determined that said plurality of printers are not of the identical type,

transmitting the intermediate print data respectively to said plurality of

printers according to the allocation by said function (c) with data conversion

by the corresponding printer driver.

5   44. A distributed printing control apparatus that groups print data of

interest, which is to be printed, by a predetermined unit, specifies allocation

of respective grouped parts of the print data to a plurality of printers as

allocation information, and outputs the print data to said plurality of printers

in a distributive manner based on the allocation information, said distributed

10   printing control apparatus comprising:

a working status detection module that detects a current working

status of a printer specified as a destination of distribution according to the

allocation information; and

a display control module that displays one window on a display device,

15   the window including at least a field showing the allocation information and

another field showing the current working status detected by said working

status detection module.

45. A distributed printing control apparatus in accordance with claim

20   44, said distributed printing control apparatus further comprising:

a first control module that causes said display control module to carry

out a display with regard to a print job, while one unit of print data specified

by the print job is either in distributed printing or in a waiting queue.

25   46. A distributed printing control apparatus in accordance with claim

45, said distributed printing control apparatus further comprising:

a second control module that causes said display control module to

carry out a display with regard to the print job, while the distributed printing

of the unit of print data specified by the print job is concluded.

5   47. A distributed printing control apparatus in accordance with claim

46, said distributed printing control apparatus further comprising a switch

that is operated to alternatively change over between the display by said first

control module and the display by said second control module.

48. (Amended) A distributed printing control apparatus in accordance with claim 46,

wherein said second control module allocates an order of collection to the respective printers

by considering a sequence of collected resulting prints and displays the allocation in the

window.

49. (Amended) A distributed printing control apparatus in accordance with claim 46,

wherein said second control module displays in the window a switch for activating another

cycle of distributed printing after conclusion of one cycle of distributed printing.

50. (Amended) A distributed printing control apparatus in accordance with claim 44,

wherein the allocation information with regard to multiple print jobs, each representing the

print data, is simultaneously displayed in the window.

51. (Amended) A distributed printing control apparatus in accordance with claim 44,

said distributed printing control apparatus comprising: a distribution information setting

module that displays an input window on said display device and sets diverse pieces of

information with regard to distribution of the print data, based on input data from an input

device, wherein the allocation information is specified, based on the diverse pieces of

information set by said distribution information setting module.

52. A distributed printing control method that groups print data of interest, which is to be printed, by a predetermined unit, specifies allocation of respective grouped parts of the print data to a plurality of printers as allocation information, and outputs the print data to said plurality of printers in a distributive manner based on the allocation information, said distributed printing control method comprising the steps of:

(a) detecting a current working status of a printer specified as a destination of distribution according to the allocation information; and

(b) displaying one window on a display device, the window including at least a field showing the allocation information and another field showing the current working status detected in said step (a).

53. (Amended) A distributed printing control method that groups print data of interest, which is to be printed, by a predetermined unit, specifies allocation of respective grouped parts of the print data to a plurality of printers as allocation information, and outputs the print data to said plurality of printers in a distributive manner based on the allocation information, said distributed printing control method comprising at least one step corresponding to the structure of a distributed printing control apparatus in accordance with claim 45.

54. A computer readable recording medium in which a computer

5   program used in a distributed printing control apparatus is recorded, said

distributed printing control apparatus grouping print data of interest, which

is to be printed, by a predetermined unit, specifying allocation of respective

grouped parts of the print data to a plurality of printers as allocation

information, and outputting the print data to said plurality of printers in a

10   distributive manner based on the allocation information, said computer

program causing a computer to attain the functions of:

(a) detecting a current working status of a printer specified as a

destination of distribution according to the allocation information; and

(b) displaying one window on a display device, the window including

15   at least a field showing the allocation information and another field showing

the current working status detected by said function (a).

55. A computer readable recording medium in accordance with claim

54, wherein said computer program further causes the computer to attain the

20   function of:

(c) carrying out a display with regard to a print job, while one unit of

print data specified by the print job is either in distributed printing or in a

waiting queue.

25   56. A computer readable recording medium in accordance with claim

55, wherein said computer program further causes the computer to attain the

function of:

(d) carrying out a display with regard to the print job, while the distributed printing of the unit of print data specified by the print job is concluded.

57. (Amended) A computer readable recording medium in which a computer program used in a distributed printing control apparatus is recorded, said distributed printing control apparatus grouping print data of interest, which is to be printed, by a predetermined unit, specifying allocation of respective grouped parts of the print data to a plurality of printers as allocation information, and outputting the print data to said plurality of printers in a distributive manner based on the allocation information, said computer program causing a computer to attain at least one function corresponding to the structure of a distributed printing control apparatus in accordance with claim 47.

58. A computer program used in a distributed printing control apparatus, said distributed printing control apparatus grouping print data of interest, which is to be printed, by a predetermined unit, specifying allocation of respective grouped parts of the print data to a plurality of printers as allocation information, and outputting the print data to said plurality of printers in a distributive manner based on the allocation information, said computer program causing a computer to attain the functions of:

(a) detecting a current working status of a printer specified as a destination of distribution according to the allocation information; and

(b) displaying one window on a display device, the window including

at least a field showing the allocation information and another field showing

the current working status detected by said function (a).

59. A distributed printing control apparatus, comprising:

5   a printer specification module that specifies multiple printers as

destinations of distribution among all printers connecting with said

distributed printing control apparatus to allow data transmission; and

a distribution control module that outputs print data of interest,

which is to be printed, in a distributive manner to the multiple printers

10   specified by said printer specification module,

said distribution control module comprising:

a printer selection module that, when any trouble arises in any of the

multiple printers specified by said printer specification module, selects one

printer immediately available for printing among all the printers except the

15   printer with the trouble; and

a troubled-time output module that outputs a distributed portion of

the print data to the printer selected by said printer selection module as an

alternative printer for the printer with the trouble.

20   60. A distributed printing control apparatus in accordance with claim

59, wherein said printer selection module comprises an identification module

that identifies type of each printer to select a printer of an identical or similar

type with or to a type of the printer with the trouble.

25   61. A distributed printing control apparatus in accordance with claim

60, said distributed printing control apparatus further comprising:

a performance information input module that receives information on

performances of the respective printers from printer drivers provided for

respective types of all the printers,

wherein said identification module comprises a type specification

5   module that specifies a printer of the identical or similar type, based on the

information input into said performance information input module.

62. (Amended) A distributed printing control apparatus in accordance with claim 59,

said distributed printing control apparatus further comprising: a monitor module that

monitors occurrence of any trouble in each of the multiple printers specified by said printer

specification module, wherein said distribution control module comprises an after-start-of-

printing alternative control module, when said monitor module detects occurrence of any

trouble in any of the multiple printers during a time period between a start of distributed

output of the print data and completion of printing with each printer, outputs non-printed

page data, which is included in a distributed portion of the print data output to the printer with

the trouble, to the alternative printer.

63. A distributed printing control apparatus in accordance with claim

62, wherein said after-start-of-printing alternative control module outputs

page data, which represents a message showing replacement of the printer, to

the alternative printer.

64. (Amended) A distributed printing control apparatus in accordance with claim 59, said distributed printing control apparatus further comprising: a monitor module that monitors occurrence of any trouble in each of the multiple printers specified by said printer specification module, wherein said distribution control module comprises a before-printing alternative control module, when said monitor module detects occurrence of any trouble in any of the multiple printers prior to a start of distributed output of the print data, outputs a portion of the print data, which is expected to be output to the printer with the trouble, to the alternative printer.

65. (Amended) A distributed printing control apparatus in accordance with claim 59, wherein said distribution control module comprises: a printer reselection module that, when any trouble arises in the alternative printer, selects one printer immediately available for printing among all the printers except the printer with the trouble; and a module that outputs a portion of the print data in a distributive manner to the printer selected by said printer reselection module as a new alternative printer.

20   66. A distributed printing control apparatus in accordance with claim 59, wherein said printer selection module comprises:

a candidate printer selection module that selects at least one printer that is of an identical or similar type with or to a type of the printer with the trouble and is immediately available for printing, among all the printers

25   except the printer with the trouble; and

an alternative printer selection module that selects one printer

satisfying a predetermined condition out of the at least one printer selected by said candidate printer selection module.

67. A distributed printing control apparatus in accordance with claim

5   66, wherein said printer selection module further comprises:

a selection method specification module that specifies whether the

selection of the alternative printer is carried out manually or automatically;

a manual printer selection module that, in response to specification of

the manual selection by said selection method specification module, displays

10   a data input window on a display device and selects one printer among all the

printers except the printer with the trouble, based on input data from an

input device according to the display of the window; and

a module that, in response to specification of the automatic selection

by said selection method specification module, activates said candidate

15   printer selection module and said alternative printer selection module.

68. (Amended) A distributed printing control apparatus in accordance with claim 66,

wherein said candidate printer selection module comprises: a first selection module that

selects a printer of an identical type with a type of the printer with the trouble, among all the

printers except the printer with the trouble; and a second selection module that, when no

printer is selected by said first selection module, selects a printer having a printing

performance close to that of the printer with the trouble, among all the printers except the

printer with the trouble.

69. A distributed printing control apparatus in accordance with claim 68, wherein said distribution control module comprises:

a module that, when the printer selected by said second selection

5   module is specified as the alternative printer, corrects the print data to make a resulting print obtained from the alternative printer substantially equivalent to a resulting print expected from the printer with the trouble.

70. (Amended) A distributed printing control apparatus in accordance with claim 66, wherein said candidate printer selection module comprises: a speed preference decision module that determines whether or not a speed preference mode is set for distributed printing; and an under-speed-preference-mode selection module that selects one available printer

regardless of type of the printer, when said speed preference decision module gives an affirmative answer.

71. (Amended) A distributed printing control apparatus in accordance with claim 66, wherein said alternative printer selection module comprises: a module that selects a printer of a highest printing speed among the at least one printer selected by said candidate printer selection module.

72. (Amended) A distributed printing control apparatus in accordance claim 59, said distributed printing control apparatus further comprising: a display control module that displays a name of the printer selected by said alternative printer selection module on a display device.

73. A distributed printing control apparatus in accordance with claim

5   72, said distributed printing control apparatus further comprising:

a module that causes said display control module to give a display

when the print data is either in distributed printing or in a waiting queue.

74. (Amended) A distributed printing control apparatus in accordance with claim 72,

said distributed printing control apparatus further comprising: a module that causes said

display control module to give a display when the distributed printing of the print data is

concluded.

75. (Amended) A distributed printing control apparatus in accordance with claim 59,

wherein said distribution control module comprises: a module that corrects the print data to

make a resulting print obtained from the alternative printer substantially similar to a resulting

print expected from the printer with the trouble, when the alternative printer is of a different

type from a type of the printer with the trouble.

76. A distributed printing control method, said method comprising the

steps of:

(a) specifying multiple printers as destinations of distribution among

25   all printers connecting to allow data transmission; and

(b) outputting print data of interest, which is to be printed, in a

distributive manner to the multiple printers specified in said step (a),

said step (b) comprising the steps of:

(b1) when any trouble arises in any of the multiple printers specified in said step (a), selecting one printer immediately available for printing among all the printers except the printer with the trouble; and

(b2) outputting a distributed portion of the print data to the printer selected in said step (b1) as an alternative printer for the printer with the trouble.

77. A distributed printing control method in accordance with claim 76, wherein said step (b1) comprises the step of:

(b11) identifying type of each printer to select a printer of an identical or similar type with or to a type of the printer with the trouble.

78. (Amended) A distributed printing control method that outputs print data of interest, which is to be printed, to multiple printers in a distributive manner, said distributed printing control method comprising at least one step corresponding to the structure of a distributed printing control apparatus in accordance with claim 61.

79. A computer readable recording medium in which a computer program for controlling distributed printing is recorded, said computer program causing a computer to attain the functions of:

(a) specifying multiple printers as destinations of distribution among all printers connecting to allow data transmission; and

(b) outputting print data of interest, which is to be printed, in a

distributive manner to the multiple printers specified by said function (a),

said function (b) comprising the functions of:

(b1) when any trouble arises in any of the multiple printers specified

by said function (a), selecting one printer immediately available for printing

5   among all the printers except the printer with the trouble; and

(b2) outputting a distributed portion of the print data to the printer

selected by said function (b1) as an alternative printer for the printer with

the trouble.

10   80. A computer readable recording medium in accordance with claim

79, wherein said function (b1) comprises the function of:

(b11) identifying type of each printer to select a printer of an identical

or similar type with or to a type of the printer with the trouble.

15   81. A computer readable recording medium in accordance with claim

80, wherein said computer program causes the computer to further attain the

function of:

(c) receiving information on performances of the respective printers

from printer drivers provided for respective types of all the printers,

20   said function (b11) specifying a printer of the identical or similar type,

based on the information input by said function (c).

82. (Amended) A computer readable recording medium in accordance with claim 79,

wherein said computer program causes the computer to further attain the function of: (d)

monitoring occurrence of any trouble in each of the multiple printers specified by said

function (a), said function (b) further comprising the function of: (b3) when occurrence of

any trouble is detected by said function (d) in any of the multiple printers during a time

period between a start of distributed output of the print data and completion of printing with

each printer, outputting non-printed page data, which is included in a distributed portion of

the print data output to the printer with the trouble, to the alternative printer.

83. (Amended) A computer readable recording medium in accordance with claim 82,

wherein said function (b3) outputs page data, which represents a message showing

replacement of the printer, to the alternative printer.

84. (Amended) A computer readable recording medium in accordance with claim 79,

wherein said computer program causes the computer to further attain the function of: (d)

monitoring occurrence of any trouble in each of the multiple printers specified by said

function (a), said function (b) further comprising the function of: (b3) when occurrence of

any trouble is detected by said function (d) in any of the multiple printers prior to a start of

distributed output of the print data, outputting a portion of the print data, which is expected to

be output to the printer with the trouble, to the alternative printer.

85. (Amended) A computer readable recording medium in accordance with claim 79,

wherein said function (b) further comprises the functions of: (b3) when any trouble arises in

the alternative printer, selecting one printer immediately available for printing among all the

printers except the printer with the trouble; and (b4) outputting a portion of the print data in a

distributive manner to the printer selected by said function (b3) as a new alternative printer.

86. A computer readable recording medium in accordance with claim 79, wherein said function (b1) comprises the functions of:

10   (b11) selecting at least one printer that is of an identical or similar type with or to a type of the printer with the trouble and is immediately available for printing, among all the printers except the printer with the trouble; and

          (b12) selecting one printer satisfying a predetermined condition out of

15   the at least one printer selected by said function (b11).

87. A computer readable recording medium in accordance with claim 86, wherein said function (b1) comprises the functions of:

          (b13) specifying whether the selection of the alternative printer is

20   carried out manually or automatically;

          (b14) in response to specification of the manual selection by said function (b13), displaying a data input window on a display device and selecting one printer among all the printers except the printer with the trouble, based on input data from an input device according to the display of

25   the window; and

          (b15) in response to specification of the automatic selection by said

function (b13), activating said function (b11) and said function (b12).

88. (Amended) A computer readable recording medium in accordance with claim 86, wherein said function (b11) comprises the functions of: (b111) selecting a printer of an identical type with a type of the printer with the trouble, among all the printers except the printer with the trouble; and (b112) when no printer is selected by said function (b111), selecting a printer having a printing performance close to that of the printer with the trouble, among all the printers except the printer with the trouble.

89. A computer readable recording medium in accordance with claim 88, wherein said function (b) further comprises the function of:

15   when the printer selected by said function (b112) is specified as the alternative printer, correcting the print data to make a resulting print obtained from the alternative printer substantially equivalent to a resulting print expected from the printer with the trouble.

90. (Amended) A computer readable recording medium in accordance with claim 86, wherein said function (b11) further comprises the functions of: determining whether or not a speed preference mode is set for distributed printing; and selecting one available printer regardless of type of the printer, when it is determined that the speed preference mode is set.

91. (Amended) A computer readable recording medium in accordance with claim 86, wherein said function (b12) further comprises the function of: selecting a printer of a highest printing speed among the at least one printer selected by said function (b11).

92. (Amended) A computer readable recording medium in accordance with claim 79, wherein said computer program causes the computer to further attain the function of: (d) displaying a name of the printer selected by said function (b12) on a display device.

93. A computer readable recording medium in accordance with claim

15   92, wherein said computer program causes the computer to further attain the

function of:

activating said function (d) to give a display when the print data is

either in distributed printing or in a waiting queue.

94. (Amended) A computer readable recording medium in accordance with claim 92,

wherein said computer program causes the computer to further attain the function of:

activating said function (d) to give a display when the distributed printing of the print data is

concluded.

95. (Amended) A computer readable recording medium in accordance with claim 79,

wherein said function (b) further comprises the function of: correcting the print data to make

a resulting print obtained from the alternative printer substantially similar to a resulting print

expected from the printer with the trouble, when the alternative printer is of a different type

from a type of the printer with the trouble.